

DUAL-FILTER ARCHITECTURE FOR REDUCED DISPERSION

ABSTRACT

Chromatic dispersion of thin-film based mux/demux and add/drop modules can be reduced. Thin-film devices can be arranged in a specific order in the module. Multiple kinds of filters are used to remove “even” and “odd” channels, or other divisions of channels. At least one filter type can be designed for a higher dispersion in transmission but lower dispersion in reflection. At least another filter type can be designed in conjunction with the first filter type such that the sum of the dispersion from the reflection and that from transmission is as low as possible. This ensures that the overall dispersion of the odd and even channels is lower than what one can achieve with one uniform filter.